

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Testuo Ogawa et al.
Serial No. : Continuation of 08/687,360
For : APPARATUS AND METHOD FOR
INFORMATION RECORDING AND
REPRODUCTION
Filed : herewith
Examiner : A. Moe (parent application)
Art Unit : 2712 (parent application)

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PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Prior to examining the above-referenced Continuation application on the merits,
please enter the following Amendment:

0991040-072001

IN THE SPECIFICATION

On page 1, after the title, please add the following paragraph:

--This application is a continuation of co-pending U.S. Patent application S/N 08/687,360 filed August 2, 1996, which is a 371 of International Application PCT/JP95/00136 filed February 2, 1995.--

Please rewrite the second full paragraph on page 9 as follows:

--As shown in FIG. 1B, the archive VTR 4 reproduces video data. At this time, the archive VTR reads out a tape travel speed used when the video data was recorded, from the user bit on the time code track, and reproduces the video data at the tape travel speed. The user sets a channel by a device 8 for inputting and setting a channel that the user desires and the archive VTR retrieves an ID identifying a source to forward the tape to that position. Then, the archive VTR reproduces the video data.--

Please rewrite the fourth full paragraph on page 15 as follows:

--In this embodiment, an operator operates a control panel 27 to thereby set data of a video-data compression rate N, a recording channel and a tape travel speed. The control panel 27 is an operation panel provided on the device 5 for inputting and setting the picture quality that the user desires as shown in FIG. 1A.--

Please rewrite the first paragraph on page 21 as follows:

--In this embodiment, an operation of recording a video data on one track in accordance with the ID-1 format will be described. Fig. 8A is a structural diagram of one track. As shown in FIG. 8A is a structural diagram of one track. As shown in FIG. 8A, 256 synchronization blocks 94 are recorded on one track, a preamble 93 and a postamble 95 being respectively recorded thereon before and after the synchronization blocks. 20 synchronization blocks of the 256 synchronization blocks 94 are those of the outer error codes.--

Please rewrite the paragraph bridging page 22 and page 23 as follows:

--When the source tape having the recording time of 100 (minutes) is used and the compression rate is 1/16, it is possible to store the contents of the 16 source tapes in one tape for the data recorder DIR-1000. It is possible to record the contents of the respective source tapes on one tape with different compression rates if the user desires.--

Please rewrite the second full paragraph on page 23 as follows:

--While in this embodiment the format of the video data is converted from an exiting format thereof to an archive format thereof by using the data recorder DIR-1000 as the archive VTR 4, it is needless to say that an existing digital VTR (D1 or the like) other than the data recorder or a data recorder having a new archive format may be employed.--

Please rewrite the second full paragraph on page 24 as follows:

--Further, according to the above embodiment, the source reproducing VTR 1 as the video data supplying means reproduces the source tape by the VTR, it is possible to convert the existing format thereof.--

Please rewrite the second full paragraph on page 29 as follows:

--The encoding units 201B, 202B, 203B,..., 216B generate error correction codes and so on for digital signal processings. In the digital signal processings, the signal of each channel is digitally processed, and the processings of the data of the respective channels are completely independent of one another.--

Please rewrite the third full paragraph on page 30 as follows:

--However, when the number of the recording heads A, B, C, D are larger than the channel number, it is physically difficult to mount the drum with as many recording heads as channel numbers, and this arrangement is very costly. Therefore, in general, the number of the recording heads A, B, C, D is properly set to about 8 to 16.--

IN THE CLAIMS:

Please cancel Claims 1-8.

Please add the following Claims 9-26:

9. (New) Recording apparatus comprising:

(a) a video-data section for supplying video data that originated from a plurality of source mediums;

(b) a compression section for compressing said video data;

(c) a recording section for recording said compressed video data on a recording medium;

(d) said recording section further recording on said recording medium compression rate data indicating a compression rate of said video data compressed by said compression section; and

(e) said recording section further recording, on a time code track of said recording medium, identification signals corresponding to different ones of said source mediums.

10. (New) The recording apparatus of claim 9 wherein said source mediums are source tapes and said recording medium is a tape.

11. (New) The recording apparatus of claim 9 wherein said supplied video data is video data of various data formats, said compression section compresses said video data of various data formats, and said recording apparatus further comprises a formatting section for formatting said video data of various data formats compressed by said compression section into an archive format.

12. (New) The recording apparatus of claim 9, further comprising:

(f) a setting section for setting a compression rate used in said compression section; and

(g) a control section for controlling a travel speed of said recording medium so that said recording medium travels at a speed corresponding to said compression rate set by the setting section.

13. (New) The recording apparatus of claim 9, wherein:

said compression section comprises a plurality of compression encoders, each for compression encoding video data that originated from a respective one of said source mediums; and

said apparatus further comprises a multiplexer for time division multiplexing the compressed video from said plurality of compression encoders;

wherein said recording section records the multiplexed video on said recording medium.

14. (New) The recording apparatus of claim 9, wherein said recording section further records said compression rate data on said time code track.

15. (New) Recording method comprising:

- (a) supplying video data that originated from a plurality of source mediums;
- (b) compressing said video data;
- (c) recording said compressed video data on a recording medium;
- (d) recording on said recording medium compression rate data indicating a compression rate of said video data compressed by said compression section; and
- (e) recording, on a time code track of said recording medium, identification signals corresponding to different ones of said source mediums.

16. (New) The recording method of claim 15 wherein said source mediums are source tapes and said recording medium is a tape.

17. (New) Recording apparatus comprising:

(a) a video-data section for supplying video data that originated from a plurality of source mediums or channels;

(c) a multiplexing section for time division multiplexing said video data; and

(c) a recording section for recording said multiplexed video data on a recording tape in tracks thereof, with each track having an upper and lower portion;

(d) wherein video originating from different ones of said source mediums or channels is recorded in upper and lower portions of a given track.

18. (New) The recording apparatus of claim 17 wherein said recording section reserves a space in between said upper and lower portions of a given track for editing.

19. (New) The recording apparatus of claim 17, further comprising a compression section for compressing said video data prior to said time division multiplexing thereof.

20. (New) The recording apparatus of claim 19, wherein said compression section comprises a plurality of compression encoders, each for compressing the video data of a respective one of said source mediums.

21. (New) The recording apparatus of claim 17, wherein:

said recording section further records on said recording tape a compression rate of said video data compressed by said compression section; and

said recording section further recording, on a time code track of said recording tape, identification signals corresponding to different ones of said source mediums.

22. (New) Recording method comprising:

- (a) supplying video data that originated from a plurality of source mediums or channels;
- (c) time division multiplexing said video data; and
- (c) recording said multiplexed video data on a recording tape in tracks thereof, with each track having an upper and lower portion;
- (d) wherein video originating from different ones of said source mediums or channels is recorded in upper and lower portions of a given track.

23. (New) The recording method of claim 22, further comprising reserving a space in between said upper and lower portions of a given track for editing.

24. (New) The recording method of claim 22, further comprising compressing said video data prior to said time division multiplexing thereof.

25. (New) Reproduction apparatus comprising:

- (a) a reproduction section for reproducing time division multiplexed video data from a recording tape having tracks;
- (b) each of said tracks having an upper and lower portion;
- (c) said video data having originated from different source mediums or channels prior to having been recorded on said recording tape;
- (d) said reproduction section reproducing said video data of different ones of said source mediums or channels from upper and lower portions of a given track; and

(e) a de-multiplexing section that de-multiplexes said reproduced video data.

26. (New) The reproduction apparatus of claim 25, wherein said video data was recorded on said recording tape in a compressed format; and

said apparatus further comprises an expanding section for expanding said reproduced video data.

REMARKS

This Preliminary Amendment makes proper reference to the parent of this application, i.e., co-pending U.S. Patent application S/N 08/687,360 filed August 2, 1996.

Claims 9-26 added by this Preliminary Amendment are intended to cover inventive subject matter disclosed, but not claimed, in the above-noted parent application. Claims 9-26 presented herein are believed to be patentably distinguishable from the prior art of record in the parent application. An Information Disclosure Statement accompanies this preliminary amendment.

The specification has been amended to make proper reference to the parent application and to correct obvious typographical or grammatical errors.

Entry of this amendment, and early action on the merits is respectfully solicited.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

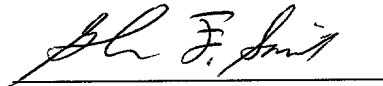
Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned **"Version With Markings to Show**

Changes Made."

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By:



Glenn F. Savit
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(212) 588-0800

450104-3165.1

IN THE SPECIFICATION:

--As shown in FIG. 1B, the archive VTR 4 reproduces [a] video data. At this time, the archive VTR reads out a tape travel speed used when the video data was recorded, from the user bit on the time code track, and reproduces the video data at the tape travel speed. The user sets a channel by a device 8 for inputting and setting a channel that the user desires and the archive VTR retrieves an ID identifying a source to forward [forwards] the tape to that position. Then, the archive VTR reproduces the video data.--

--In this embodiment, an operator operates a control panel 27 to thereby set [a] data of a video-data compression rate N, a recording channel and a tape travel speed. The control panel 27 is an operation panel provided on the device 5 for inputting and setting the picture quality that the user desires as [the] shown in FIG. 1A.--

--In this embodiment, an operation of recording [a] video data on one track in accordance with the ID-1 format will be described. Fig. 8A is a structural diagram of one track. As shown in FIG. 8A is a structural diagram of one track. As shown in FIG. 8A, 256 synchronization blocks 94 are recorded on one track, a preamble 93 and a postamble 95 [94] being respectively recorded thereon before and after the synchronization blocks. 20 synchronization blocks of the 256 synchronization blocks 94 are those of the outer error codes.--

The paragraph bridging page 22 and page 23 has been rewritten as follows:

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--While in this embodiment the format of the video data is converted from an [exiting] existing format thereof to an archive format thereof by using the data recorder DIR-1000 as the archive VTR 4, it is needless to say that an existing [exiting] digital VTR (D1 or the like) other than the data recorder or a data recorder having a new archive format may be employed.--

The second full paragraph on page 24 has been rewritten as follows:

--Further, according to the above embodiment, the source reproducing VTR 1 as the video data supplying means reproduces the source tape by the VTR, it is possible to convert the existing [exiting] format thereof.--

The second full paragraph on page 29 has been rewritten as follows:

--The encoding units 201B, 202B, 203B,..., 216B generate [generates] error correction codes and so on for digital signal processings. In the digital signal processings, the signal of each channel is digitally processed, and the processings of the data of the respective channels are completely independent of one another.--

The third full paragraph on page 30 has been rewritten as follows:

--However, when the number of the recording heads A, B, C, D are larger than the channel number, it is physically difficult to mount the drum with [the] as many recording heads [which are as much] as [the] channel numbers, and this arrangement is very costly [costs very high]. Therefore, in general, the number of the recording heads A, B, C, D is properly set to about 8 to 16.--

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